

# Notice of Allowability

Application No.

10/748,335

Examiner

Paul C. Martin

Applicant(s)

KAHNE ET AL.

Art Unit

1657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendments of 04/19/07.
2. ☒ The allowed claim(s) is/are 2,4-6,8-11 and 21-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Christopher Casieri on 10/24/07.

The application has been amended as follows:

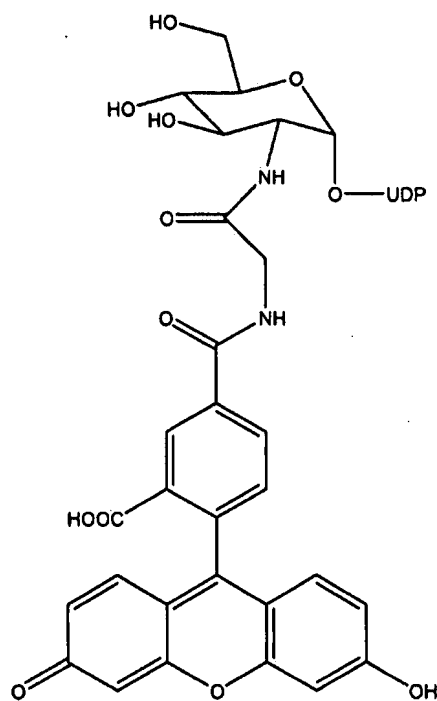
2. A The method according to claim 21 wherein the glycosyltransferase is a GT-A or GT-B, NDP-glycosyltransferase.
4. A The method according to claim 21 wherein the substrate comprises UDP, TDP or GDP.
5. A The method according to claim 21 wherein the substrate comprises UDP-GlcNac.
6. A The method according to claim 21 wherein the glycosyltransferase is MurG.
8. A The method according to claim 21 wherein the label is selected from the group consisting of a chromophore, a fluorophore, a dye, a radioisotope and an enzyme.
9. A The method according to claim 8 wherein the label is a fluorophore.
10. A The method according to claim 9 wherein the fluorophore is fluorescein.

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11. A method of identifying a compound that inhibits the ability of a glycosyltransferase to bind a substrate comprising:

combining a glycosyltransferase, a labeled substrate, and a compound, in a reaction vessel, under conditions known to be suitable for the glycosyltransferase to bind the labeled substrate,

measuring an the amount of labeled substrate bound to the glycosyltransferase, and comparing the amount to a standardized amount to identify a relative increase or decrease in substrate bound glycosyltransferase, thereby identifying a compound that modulates the ability of the glycosyltransferase to bind the substrate, wherein the glycosyltransferase is a GT-A or GT-B, NDP-glycosyltransferase, the label is fluorescein and, the labeled substrate is the UDP-GlcNAc (hexose donor) analogue:



21. A method of identifying a compound that inhibits the ability of a nucleotide-sugar glycosyltransferase to bind a substrate comprising: ~~performing a donor displacement assay on a target compound wherein at least one substituent on the glycosyl group of the glycosyl donor can be modified to incorporate a label without abolishing binding of the donor to the glycosyltransferase.~~ by performing a donor displacement assay comprising: combining in a reaction vessel, under conditions known to be suitable for the glycosyltransferase to bind the labeled substrate, a glycosyltransferase, a compound labeled substrate, and a glycosyl donor compound, wherein at least one substituent on the glycosyl group of said glycosyl donor compound can be modified to incorporate a label without abolishing binding of the donor to the glycosyltransferase, measuring the amount of labeled substrate glycosyl donor bound to the glycosyltransferase, and comparing the amount to a standardized amount to identify a relative increase or decrease in substrate glycosyl donor bound to the glycosyltransferase, thereby identifying a compound that modulates the ability of the glycosyltransferase to bind the substrate glycosyl donor.

Claims 2, 4-6, 8-11 and 21-23 are allowed.

The following is an examiner's statement of reasons for allowance: The closest prior art is Kaminska *et al.* (1999) which discloses the use of triazine dyes as competitive inhibitors of the glycosyl donor site of glycosyltransferases in activity assays. The reference however, does not teach or suggest assaying the amount of binding between the glycosyl donor and the glycosyltransferases in the presence and absence of the test compound.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul C. Martin whose telephone number is 571-272-3348. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paul Martin  
Examiner  
Art Unit 1657

10/19/07

/Jon P Weber/  
Jon P Weber  
Supervisory Patent Examiner 1657